IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Lin Hai, et al.

Serial No.: 10/573,446 Group Art Unit: 2879

Filed: March 24, 2006 Examiner: Thomas A. Hollweg

For: PLASMA DISPLAY PANEL AND METHOD OF MANUFACTURING SAME

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

We, Hai Lin, Taro Naoi, Atsushi Hirota, and Takeshi Sasaki, hereby declare and state:

THAT we are citizens of China, Japan, Japan, and Japan, respectively;

THAT we received the following degrees:

Hai Lin received his B.E. degree from Xi'an Jiatong University, China, in 1990 and his M.E. degree from Hiroshima University, Japan in 1996;

Taro Naoi received his B.E. and M.E. degrees in electronic engineering from Tokyo University of Agriculture and Technology, Tokyo Japan, in 1998 and 2000, respectively;

Atsushi Hirota received his B.E. degree in the Graduate School of Science and Technology from Shinsyu University; and

Takeshi Sasaki received his B.E. degree in Physics from Okayama University;

THAT we are familiar with the Office Action dated June 20, 2008, where the Examiner asserted that claims 1-6, 9-12, 14-19, 22-25, 28-29, and 31-34 were anticipated under 35 U.S.C.

§ 102(b) by Miyashita, et al. (JP 2002-150953; hereinafter "Miyashita"), claims 7, 8, 13, 24, 25, and 30 were unpatentable under 35 U.S.C. § 103(a) over Miyashita, claim 20 was unpatentable under 35 U.S.C. § 103(a) over Miyashita in view of Sakurai, et al. (U.S. Patent No. 6,821,616; hereinafter "Sakurai"), and claims 21, 26, and 27 were unpatentable under 35 U.S.C. § 103(a) as over Miyashita in view of Bocko, et al. (U.S. Patent No. 4,604,118; hereinafter "Bocko"). In particular, the Examiner "that based on the size and configuration of the magnesium oxide crystals disclosed by Miyashita, the magnesium oxide layer of would (*sic*) cause a cathode-luminescence emission having a peak within a wavelength range of 200 nm to 300 nm upon being excited by electron beams";

THAT we are co-inventors of the above-identified application;

With respect to the Examiner's rejections, we state and declare that the attached data (see Figures A-E) that the claimed CL emission having a peak within a wavelength range of 200nm to 300nm upon excitation by an electron beam is not caused from a MgO layer formed by vacuum evaporation (vapor deposition) as taught in Miyashita.

Figure A shows intensities of CL emission emitted from an MgO layer formed by vapor deposition with a thickness of about 2000, 3000, and 8000 angstrom.

Figures B-D respectively show surface and cross sectional photographs of SEM of MgO layers formed by vapor deposition, which are measuring objects of Figure A.

Figure E shows a comparison of intensities of CL emission emitted by an MgO layer formed by CVD (chemical vapor deposition) and PVD (physical vapor deposition).

As shown in Figures A and E, MgO crystals formed by vapor deposition does not emit CL emission with a peak wavelength of 200nm to 300nm by being excited by an electron beam.

We declare further that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 18/09/2008 — Hai Lin
Mr. Hai Lin

Date: 17/09/2008 — Taro Naoi
Mr. Taro Naoi

Date: 18/09/2008 — Atsushi Hirota
Mr. Atsushi Hirota

Date: 17/09/2008 — Takeshi Sasaki
Mr. Takeshi Sasaki

DATA

Fig. A

Intensity of CL Emission emitted from MgO layer formed by vapor deposition

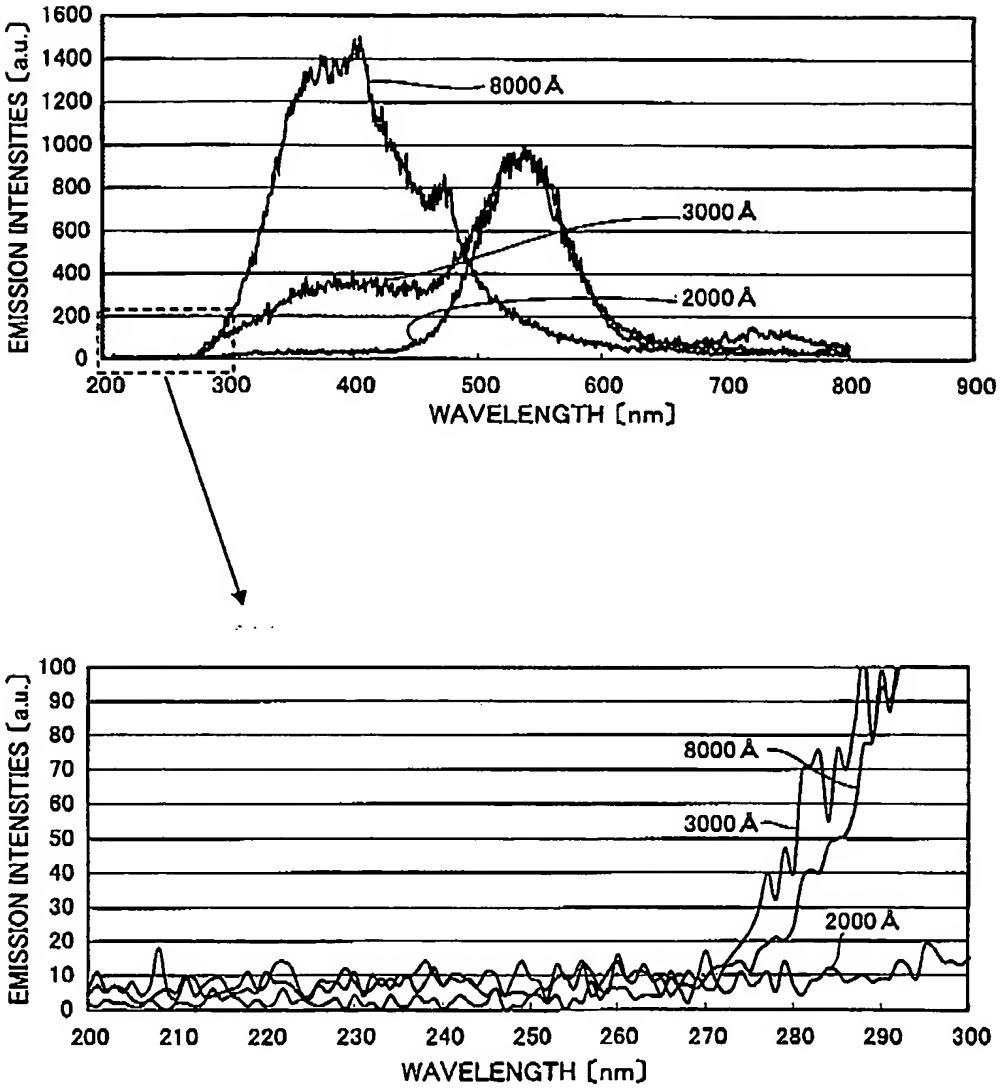
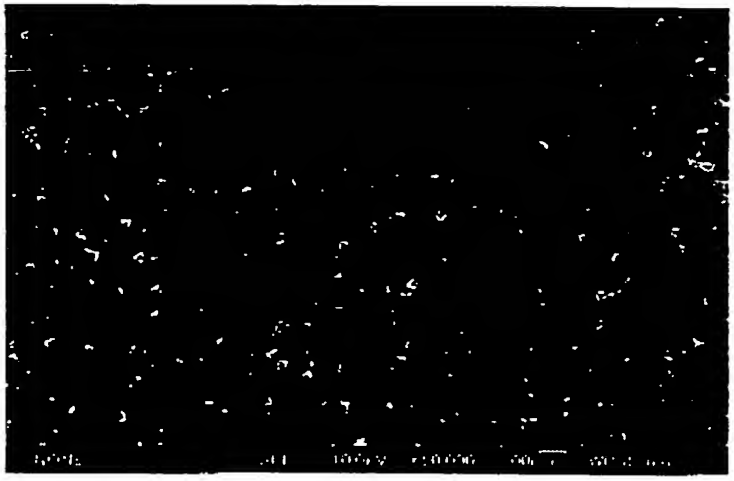


Fig. B

THICKNESS 2000Å

SEM MgO LAYER SURFACE PHOTOGRAPHS



SEM MgO LAYER CROSS-SECTIONAL PHOTOGRAPHS

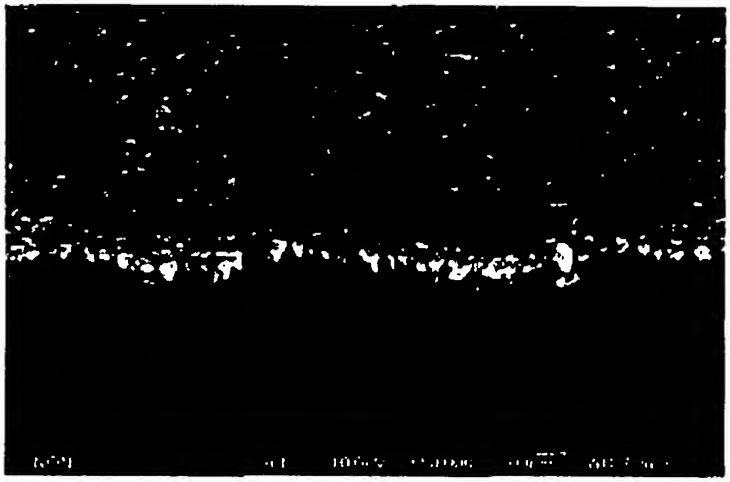
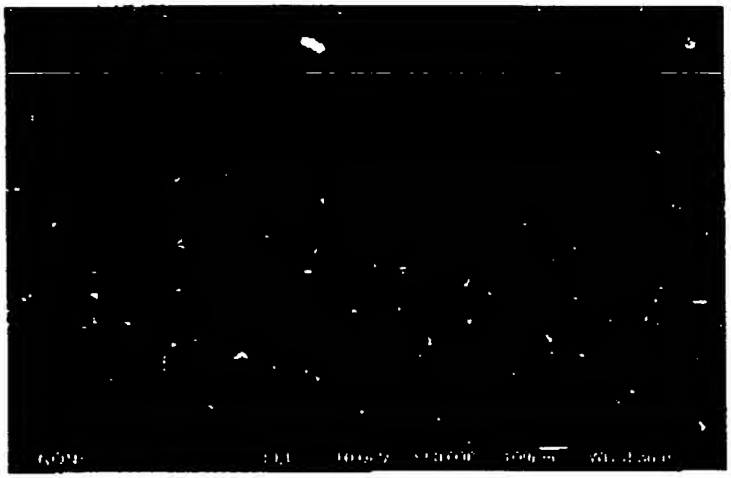


Fig. C

THICKNESS 3000Å

SEM MgO LAYER SURFACE PHOTOGRAPHS



SEM MgO LAYER CROSS-SECTIONAL PHOTOGRAPHS

Fig. D

THICKNESS 8000Å

SEM MgO LAYER SURFACE PHOTOGRAPHS

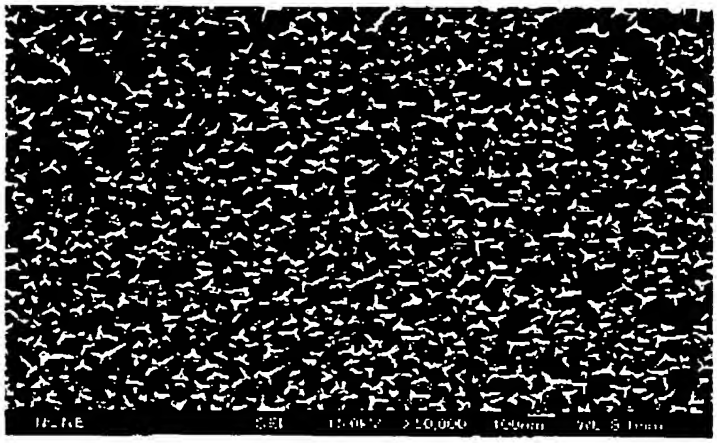
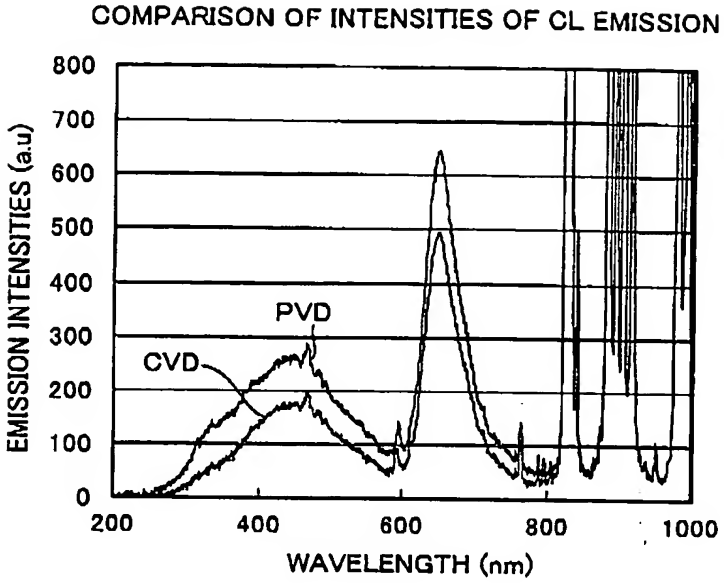


Fig. E



CVD : Chemical Vapor Deposition
PVD : Physical Vapor Deposition